CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-038
SITE CLEANUP REQUIREMENTS

SHELL OIL COMPANY
WESTERN DISTRIBUTION REGION
SAN JOSE DISTRIBUTION PLANT
SAN JOSE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

Facility Description

1. Shell Oil Company, San Jose Distribution Plant, (hereinafter called the discharger) owns and operates a petroleum bulk storage facility (hereinafter called the facility), which is used to store gasoline, diesel fuel, and fuel additives.

2. This 9.6-acre facility is located at 2165 O'Toole Avenue in San Jose. The facility is adjacent to Coyote Creek.

Groundwater Contamination

3. Petroleum fuel products have been released into the facility's underlying soil and groundwater. The facility has 12 groundwater monitoring wells (MW-1 through MW-12, inclusive). The discharger has submitted a semiannual groundwater monitoring and sampling report to the Board's staff. Groundwater is observed about 10 to 19 feet below ground surface. The monitoring data indicate that trace levels of free phase liquid petroleum hydrocarbons were observed in monitoring well MW-10 during April of 1990 and April of 1991. Also, trace levels of free phase liquid petroleum hydrocarbons were observed in monitoring well MW-4 during April of 1990. Dissolved petroleum hydrocarbon constituents have been detected in monitoring well MW-10 with concentrations as high as: Benzene 6.7 mg/l; Toluene 1.6 mg/l; Xylene 2.5 mg/l; Ethyl-Benzene 2.4 mg/l; and, Total Benzene, Toluene, Xylene, and Ethyl-Benzene 12 mg/l.

4. The discharger proposes to conduct soil vapor extraction test on monitoring wells MW-10 and MW-4 to determine if it is a viable remediation technique to cleanup the dissolved hydrocarbons plumes.

Cost Recovery

5. The Board's staff has notified the dischargers that pursuant to Sections 25270.9 and 25270.11 of Chapter 6.67, Division 20 of California's Health and Safety Code the discharger shall be liable to the extent of reasonable costs actually incurred in overseeing or contracting for cleanup or abatement efforts. The discharger (Shell Oil Company) has agreed to reimburse the State according to Sections 25270.9 and 25270.11.

6. The discharger shall also be liable to reimburse the State for its reasonable costs related to cleanup activities, not otherwise reimbursed, pursuant to Section 13304(c) of the California Water Code.

Basin Plan

7. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986 and amended it on August 19, 1987, July 18, 1989, and December 11, 1991. This Order implements the water quality objectives for Coyote Creek as stated in the Basin Plan and its subsequent amendments.

8. The existing and potential beneficial uses of the ground water in the area are:

   a. Municipal and Domestic Supply;
   b. Industrial Process and Service Supply; and,
   c. Agricultural Supply.

9. The existing and potential beneficial uses of the Coyote Creek are:

   a. Water Contact Recreation;
   b. Non-Contact Water Recreation;
   c. Warm Fresh Water Habitat;
   d. Cold Fresh Water Habitat;
   e. Wildlife Habitat;
   f. Preservation of Rare and Endangered Species; and,
   g. Fish Migration and Spawning.

Groundwater Recharge Beneficial Use

10. In a comment letter dated March 11, 1993, Santa Clara Valley Water District recognizes every creek and reservoir in Santa Clara County as having an existing or potential groundwater recharge beneficial use.

California Environmental Quality Act

11. This action is an Order to enforce the laws and regulation administered by the Board. This action is categorically exempt from the provisions of California Environmental Quality Act pursuant to Section 15321, Title 14 of the California Code of Regulations.

Notifications and Meeting

12. The Board has notified the dischargers and interested agencies and persons of its intent to prescribe site cleanup requirements and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code and 25270 of the California Health and Safety Code, that the dischargers shall cleanup and abate the effects described in the above findings as follows:

A. Prohibitions

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.

3. Activities associated with subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

4. The discharge of recovered free phase liquid petroleum hydrocarbons onto land, into ground waters or surface waters is prohibited.

B. Specifications

1. The storage, handling, treatment or disposal of soil or groundwater containing pollutants shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The dischargers shall remediate soil and water contamination, which actually or threatens to degrade water quality or adversely affect the beneficial uses of the waters of the State.

C. Provisions

1. The Discharger shall comply with all Prohibitions, Specifications, and Provisions of this Order, immediately upon adoption of this Order or as provided below.

2. The dischargers shall submit a technical report, acceptable to the Executive Officer, documenting the result of soil vapor extraction tests conducted on monitoring wells MW-10 and MW-4, and the effectiveness of this method for cleanup of petroleum contaminated plumes. This report shall contain a detailed explanation of procedures for confirmation of the effectiveness of contaminant removal. In the event that this report finds soil vapor extraction to be ineffective in removal of petroleum contamination at this facility, this report shall also consider and propose alternative remedial measures.

REPORT DUE: No later than June 15, 1993.

3. The dischargers shall submit a technical report, acceptable to the Executive Officer, evaluating the sufficiency and effectiveness of existing monitoring wells and soil data to determine the horizontal and vertical extent of contamination. This report should include a proposal for additional well installation or soil sampling and analysis as needed. This evaluation shall consider the locations of previous releases, potential pathways for migration of trace free phase liquid petroleum hydrocarbon detected in past, and the potential impact on Coyote Creek.

   REPORT DUE: No later than July 15, 1993.

4. The dischargers shall submit a technical report, acceptable to the Executive Officer, identifying the extent of hydrocarbon contaminated soil and ground water and proposing remedial alternatives for the identified contamination, including, but not necessarily limited, to the following:

   a. The horizontal and vertical extent of hydrocarbon contaminated soil and ground water, rate and direction of movement of the contaminated ground water beneath the facility; and,

   b. Proposed remedial options, including time schedules for implementation of each identified alternative for all hydrocarbon contaminated soil and ground water beneath the site or that has occurred as a result of activities at the facility.

      REPORT DUE: No later than October 1, 1993.

5. The dischargers shall submit a technical report, acceptable to the Executive Officer, identifying the selected remedial alternative for remediating the hydrocarbon contaminated soil and ground water, including, but not necessarily limited, to the following:

   a. A final remediation plan, as identified and approved above, including a time schedule for final implementation, proposed performance monitoring and reporting, and an operation and maintainence plan, if appropriate; and,

   b. The proposed cleanup standards for all hydrocarbon contaminated soil and ground water beneath the facility.

      REPORT DUE: No later than January 31, 1994.

6. The discharger is required to reimburse the State for all reasonable costs of the State incurred in overseeing or contracting for cleanup or abatement efforts.

7. The discharger shall maintain a copy of this order so as to be available at all times to project operating personnel.

8. The discharger's technical reports, as appropriate, shall include a projection of the cost, effectiveness, benefits, and impact on public health, welfare, and environment for each alternative measure. The reports shall consider the guidance provided by

the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California".

9. Technical reports, submitted by the dischargers, in compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted to the Board on the schedule specified herein. These reports shall consist of a letter report that includes the following:

   a. A summary of work completed since submittal of the previous report and work projected to be completed by the time of the next report;

   b. Identification of any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles;

   c. In the event of non-compliance with any Prohibition, Specification or Provision of this Order, written notification which clarifies the reasons for non-compliance and proposes specific measures and a schedule to achieve compliance, this written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on achieving compliance with the remaining requirements of this Order; and,

   d. In the self-monitoring reports, an evaluation of the current ground water monitoring system and a proposal for modifications as appropriate.

10. All submittal of hydro-geological plans, specifications, reports, and documents (except quarterly progress and self-monitoring reports) shall be signed by and stamped with the seal of a registered geologist, registered engineering geologist, or registered professional engineer.

11. All wells on the facility provide valuable information regarding subsurface conditions on and surrounding the facility. Therefore, the dischargers shall maintain all existing wells in operating condition. The destruction of any groundwater well shall require the acquisition of appropriate permits, shall be done according to the Contra Costa County or Department of Water Resources guidance, and shall require approval of the Board Executive Officer. Approval of the Executive Officer will require the submittal of a written request for well destruction at least 30 days in advance. In addition, the yearly summary report shall include a narrative and graphical summary of all groundwater wells installed or destroyed during that year.

12. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.

13. The dischargers shall maintain in good working order, and operate as efficiently as

possible, any facility or control system installed to achieve compliance with the requirements of this Order.

14. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, submitted by the dischargers, shall also be provided to the following agencies:

    a. City of San Jose - Fire Department;
    b. Santa Clara Valley Water District; and,
    c. California Environmental Protection Agency, Department of Toxic Substances Control.

15. The dischargers shall permit the Board or its authorized representative, in accordance with Section 13267 (c) of the California Water Code, the following:

    a. Entry upon the premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order;

    b. Access to copy and records required to be kept under the terms and conditions of this Order;

    c. Inspection of any monitoring equipment or methodology implemented in response to this Order; and,

    d. Sampling of any ground water or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the dischargers.

16. This Board considers the property owner and site operator to have continuing responsibility for correcting any problems which arise in the future as a result of this cleanup or related operations.

17. These requirements do not authorize the commission of any act causing injury to the property of another or of the public, do not convey any property rights, do not remove liability under federal, state or local laws, and do not authorize the discharge of waste without the appropriate federal, state or local permits, authorizations, or determinations.

18. Pursuant to, or unless otherwise stated in, the requirements of California Water Code Sections 13271 and 13272, if any hazardous substance or petroleum hydrocarbons is discharged in or on any waters of the state, or discharged or deposited, or probably will be discharged in or on any waters of the state, the dischargers shall report such discharge to the following:

    a. The Office of Emergency Services at (800) 852-7550 immediately;

b. This Regional Board at (510) 286-1255 on weekdays during office hours from 8 a.m. to 5 p.m.;

c. A written report shall be filed with the Regional Board within five working days and shall include but not limited to the information relative to the following:

i. The nature of waste or pollutant;
ii. The quantity involved and the duration of incident;
iii. The cause of spill;
iv. The estimated size of the affected area;
v. The corrective measures that have been taken or planned, and a schedule of these measures;
vi. Number and identity of existing or "planned to install" monitoring or recovery wells around the spill site;
vii. A detailed map presenting the spill site, any aboveground tanks, and any existing waste management units in the vicinity of the spill area; and,
viii. The persons/agencies notified.

d. On a semi-annual basis, 45 days after January or July, a written report shall be filed with the Regional Board and shall document the corrective actions in progress or completed for any spill not covered by this Order or that may occur in future. This report may be combined with the semi-annual monitoring reports. Should the cleanup of a spill be completed as satisfactory to the Executive Officer, a certification of completion should be included. Method and quantity of treatment or disposal of soil and groundwater should be documented. The progress on cleanup work should be reported semi-annually until the completion. Monitoring and chemical analysis of soil and groundwater data, along with the laboratory report should be tabulated in this report. These progress reports shall contain a section regarding status of soil and groundwater cleanup of the spill locations, which the cleanup is not completed. This section shall include but no be limited to the information as follows:

i. Number and name of monitoring wells, recovery wells, vapor extraction wells, recovery trenches with necessary information such as well characteristics, trenches dimension, and maps;
ii. Thickness of free product in the monitoring wells and /or as measured by any other vadose zone monitoring system;
iii. Volume (gallons), time period, principal contamination, and method of free product recovery; and,
iv. The implementation schedule for the remaining cleanup works, as needed.

19. The Board will review the Order periodically and may revise the requirements when necessary.

20. If the dischargers is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the dischargers shall promptly notify the Executive Officer and the Board shall consider revision of this Order.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on April 21, 1993.

Steven R. Ritchie
Executive Officer

Attachments:
Figure 1: Location Map
Figure 2: Facility Layout
Self Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

SHELL OIL COMPANY
WESTERN DISTRIBUTION REGION
SAN JOSE DISTRIBUTION PLANT
SAN JOSE, SANTA CLARA COUNTY

SITE CLEANUP REQUIREMENTS

ORDER NO. 93-038

CONSISTS OF

PART A

AND

PART B

PART A

A. General

1. Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No.73-16. This Self-Monitoring Program is issued in accordance with requirements of Regional Board Order No. 93-038.

2. The principal purposes of a self-monitoring program are the following:

   a. To document compliance with site cleanup requirements and prohibitions established by the Board;
   b. To facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge;
   c. To develop or assist in the development of standards of performance, toxicity, and water quality protection; and,
   d. To assist the discharger in complying with the requirements of Section 25270 of Chapter 6.67, Division 20 of California's Health and Safety Code.

B. Sampling And Analytical Methods

1. Sample collection, storage, and analyses shall be performed according to the most recent version of Standard Methods for the Analysis of Wastewater, and Test Methods for Evaluating Solid Waste USEPA Document SW-846, or other USEPA approved methods and in accordance with an approved sampling and analysis plan.

2. Water, soil, and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory or his duly authorized representative, whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

3. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. Definition Of Terms

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters refers to any surface water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials or contaminated soils. In addition, the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, and intermittent stock pond are also considered receiving waters.

3. Standard observations refer to:

   a. Receiving Waters

1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
2) Discoloration and turbidity: description of color, source, and size of affected area.
3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

b. Perimeter of the facility.

1) Evidence of liquid leaving or entering the facility, estimated size of affected area and flow rate. (Show affected area on map)
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion.

4. Duly authorized representative is a duly authorized representative may thus be either a named individual or any individual occupying a named position such as the following:

a. Authorization is made in writing by a principal executive officer; or,
b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as general partner in a partnership, sole proprietor in a sole proprietorship, the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company.

D. Schedule Of Sampling, Analysis, And Observations

1. The discharger is required to perform sampling, analysis, and observations according to the schedule specified in Part B.

2. A statistical analysis shall be performed and reported annually as described in the current revision of Article 5 of Chapter 15.

E. Records To Be Maintained

1. Written reports shall be maintained by the discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

a. Identity of sample and sample station number;
b. Date and time of sampling;

c. Date and time that analyses are started and completed, and name of the personnel performing the analyses;
d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;
e. Calculation of results;
f. Results of analyses, and detection limits for each analyses; and,
g. Chain of custody forms for each sample.

F. Reports To Be Filed With The Board

1. Written monitoring reports shall be filed semi-annually. These reports shall be filed no later than 45 days after the end of a reporting period. In addition an annual report shall be filed as indicated. The reports shall include the following:

a. Letter of Transmittal - A letter transmitting the essential points in each monitoring report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations, such as, operation and/or facilities modifications. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct. The letter shall contain the following certification:

"I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

b. Each monitoring report shall include a compliance evaluation summary sheet. The summary shall contain:

i. A graphic description of the velocity and direction of groundwater

flow under/around the facility, based upon the past and present water level elevations and pertinent visual observations;

ii. The method and time of water level measurement, the type of pump used for purging, pump placement in the well, method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water; and,

iii. Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, any other observations; and the chain of custody record.

c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

d. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory or his duly authorized representative, whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board. The following information shall be provided:

i. The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approval by the Executive Officer prior to use; and,

ii. In addition to the results of the analyses, laboratory quality control/quality assurance (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than 80%; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

e. A summary and certification of completion of all standard observations

for the facility, the perimeter of the facility, and the receiving waters.

f. By March 15 of each year the discharger shall submit an annual report to the Board covering the previous calendar year. This report shall contain:

i. Tabular and graphical summaries of the monitoring data obtained during the previous year. This report may also be accompanied by a 5¼" computer data disk, MS-DOS ASCII format, tabulating the year's data;

ii. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the site cleanup requirements; and,

iii. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.

G. Contingency Reporting

1. In the event the discharger violates or threatens to violate the conditions of the site cleanup requirements or prohibitions or intends to experience a plant bypass or treatment unit bypass due to:
   a. Maintenance Work, power failures, or breakdown of cleanup equipment, or;
   b. Accidents caused by human error or negligence, or;
   c. Other causes, such as acts of nature.

   The discharger shall notify the Regional Board Office by telephone as soon as she/he or her/his agents have knowledge of the incident and confirm this notification in writing within 7 working days of the telephone notification. The written report shall include time and date, duration and nature of noncompliance.

2. The report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

Part B

A. Description Of Observation Stations And Schedule Of Observations

1. The observation stations shall consists of all existing monitoring wells (MW-1 through MW-12, inclusive) and any additional ground water monitoring wells added during the soil and ground water characterization or the evaluation of remediation work.

2. The schedule of well observations and grab sampling shall be conducted within the months of January and July.

3. The amount of ground water, oil, and vapor extracted during the reporting period and total during this order shall be reported semi-annually.

6. A map showing the potentiometric surface of the underlying groundwater shall be submitted.

B. Observations and Test Procedures

1. The groundwater well observations shall consist of the following:

   a. Water elevation reported to the nearest 0.1 inch for both depth to water from the ground surface and the elevation of the groundwater level as well as the elevation of the well screen;

   b. Groundwater temperature measured at the time of sampling and reported in degrees Fahrenheit;

   c. Groundwater conductivity measured at the time of sampling as per Standard Methods 205 using potentiometric methodology;

   d. Groundwater pH measured at the time of sampling as per Standard Methods 423 using potentiometric methodology;

   e. Groundwater turbidity measured at the time of sampling; and,

   f. The thickness of free phase petroleum hydrocarbons measured in tenths of feet.

2. The test procedures for the groundwater samples and soil samples shall be as described herein. The following section shall not apply to groundwater samples taken from wells with more than 0.1 inch thickness of free phase petroleum hydrocarbon product:

a. Volatile aromatic compound analysis, including benzene, ethyl-benzene, toluene, and xylene using EPA Method 5030/8020;

b. Total Petroleum hydrocarbons and Fuel Hydrocarbons using the EPA Methods 5030/8015 (Modified) and 3550/8015 (Modified);

c. Total Recoverable Petroleum hydrocarbons using the EPA Method 418.1.

d. Lead using EPA 7420 SW-846 Method.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing discharge monitoring program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16;

2. Is effective on the date shown below; and,

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer, or request from the discharger.

Steven R. Ritchie
Executive Officer

April 21, 1993
Date Ordered